

USAWC STRATEGY RESEARCH PROJECT

**BEE POWER 21**

by

Commander Jeffrey Lamberson  
United States Navy

Colonel Kevin Weddle  
Project Advisor

The views expressed in this academic research paper are those of the author and do not necessarily reflect the official policy or position of the U.S. Government, the Department of Defense, or any of its agencies.

U.S. Army War College  
CARLISLE BARRACKS, PENNSYLVANIA 17013

Report Documentation Page			Form Approved OMB No. 0704-0188		
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE <b>07 APR 2003</b>		2. REPORT TYPE		3. DATES COVERED -	
4. TITLE AND SUBTITLE <b>Bee Power 21</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) <b>Jeffrey Lamberson;</b>				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>U.S. Army War College, Carlisle Barracks, Carlisle, PA, 17013-5050,</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT <b>See attached file.</b>					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES <b>34</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			



## ABSTRACT

AUTHOR: Jeffrey Lamberson

TITLE: Bee Power 21

FORMAT: Strategy Research Project

DATE: 07 April 2003

PAGES: 32

CLASSIFICATION: Unclassified

In October 2002, the Chief of Naval Operations (CNO) published his strategic vision for the 21<sup>st</sup> century U.S. Navy entitled Sea Power 21. From this strategic guidance, subordinate Naval commands will follow the CNO's lead and tailor their own Command strategies to match the new concepts and goals established. Naval Facilities Engineering Command (NAVFAC), has much to offer the current Naval strategy and in keeping with its tradition of contribution and service to the fleet, will want to align its strategic plan with the Sea Power 21 vision. In many ways NAVFAC is already benefiting the concepts of Sea Power 21, but in the interest of alignment and visibility in a transforming Navy, the NAVFAC organization needs to identify its contribution and communicate its vision within the newly established context. This paper will attempt to identify those elements contained in the new Navy vision to which NAVFAC already contributes, suggest the format in which these elements be communicated and recommend additional points that NAVFAC should emphasize to align its strategic vision with that of the Navy. The ultimate goal is a NAVFAC Strategic Plan that clarifies its vision for the organization and the Navy, motivates the people within the organization and coordinates their contributions to and within the context of the Sea Power 21 vision.



## TABLE OF CONTENTS

ABSTRACT.....	iii
LIST OF ILLUSTRATIONS.....	vii
BEE POWER 21 .....	1
<b>SEA POWER 21 STRATEGIC VISION DEVELOPMENT .....</b>	<b>2</b>
NATIONAL SECURITY STRATEGY.....	2
NATIONAL MILITARY STRATEGY.....	2
NAVY STRATEGY.....	3
<b>NAVAL FACILITIES ENGINEERING COMMAND STRATEGIC PLAN .....</b>	<b>5</b>
<b>ALIGNING THE NAVFAC STRATEGIC PLAN WITH SEA POWER 21 .....</b>	<b>6</b>
SEA STRIKE.....	7
<b>NAVFAC contribution to Sea Strike .....</b>	<b>7</b>
<b>NAVFAC Strategic Plan.....</b>	<b>8</b>
<b>NAVFAC Strategic Plan needs.....</b>	<b>9</b>
SEA SHIELD.....	10
<b>NAVFAC contribution to Sea Shield .....</b>	<b>10</b>
<b>NAVFAC Strategic Plan.....</b>	<b>11</b>
<b>NAVFAC Strategic Plan needs.....</b>	<b>11</b>
SEA BASING .....	12
<b>NAVFAC contribution to Sea Basing .....</b>	<b>12</b>
<b>NAVFAC Strategic Plan.....</b>	<b>13</b>

<b>NAVFAC Strategic Plan needs.....</b>	<b>13</b>
FORCENET .....	14
<b>NAVFAC on ForceNet .....</b>	<b>14</b>
GLOBAL CONCEPT OF OPERATIONS.....	14
<b>NAVFAC on Global Concept of Operations: .....</b>	<b>14</b>
SEA TRIAL .....	15
<b>NAVFAC on Sea Trial .....</b>	<b>15</b>
SEA WARRIOR .....	15
<b>NAVFAC on Sea Warrior .....</b>	<b>15</b>
SEA ENTERPRISE.....	16
<b>NAVFAC on Sea Enterprise .....</b>	<b>16</b>
<b>BEE POWER 21 .....</b>	<b>16</b>
MISSION: .....	17
VISION: BEE POWER 21 .....	17
ENDNOTES.....	19
BIBLIOGRAPHY.....	23

## LIST OF ILLUSTRATIONS

FIGURE 1. SEA POWER 21 .....	4
------------------------------	---





## BEE POWER 21

In October 2002 the Chief of Naval Operations (CNO), published his vision of how the United States Navy will organize, integrate and transform, in a document titled Sea Power 21.<sup>1</sup> This Naval strategy for the 21st century is built upon a foundation of the Bush Administration National Security Strategy and the Chairman of the Joint Chiefs of Staffs' draft National Military Strategy, both published in September 2002. With a new vision in place for the Navy it would be prudent for subordinate commands within the transformational service to evaluate their own strategic plans for commonality of mission, goals and vision. This study will offer a determination on the Naval Facilities Engineering Command (NAVFAC) alignment with the vision of its chain of command, establish what is right with the NAVFAC strategy and consider how the NAVFAC strategic plan might be organized, integrated and transformed to efficiently and effectively execute Sea Power 21, therefore guaranteeing an organizational position of relevance into the future.

Throughout the text of this paper, NAVFAC is understood to be a global military engineering organization with an annual volume of business in excess of \$8 billion. This 160 year-old organization consists of 16,000 civilian and military people that are chiefly subdivided into the functions of facilities construction, facilities management and contingency engineering.<sup>2</sup> NAVFAC is also the systems command for the Naval Construction Force (NCF) comprised of roughly 16,000 Active and Reserve SEABEES. In this command relationship, NAVFAC is responsible for the community management, policy, resourcing and outfitting of the Construction Force. Operational control of the NCF belongs to the Commander Fleet Forces. When discussing NAVFAC it is the intention of the author to include all policy concerning the Naval Construction Force. The NCF will be addressed as a separate entity when discussing the operational capabilities within its mission.

Before examining various organizational strategic plans and visions, it is important to define what strategic vision is.

Strategic vision is an essential element of political, corporate, and military leadership. It directs and shapes the forces and trends that affect us individually and organizationally. By defining a desired end state and then communicating that vision to subordinates, leaders at all levels can shape and manage change toward a desired end. Leaders who have most successfully guided the destinies of people and organizations have understood and communicated the power of strategic vision.<sup>3</sup>

One of the foremost experts on business leadership, John P. Kotter, in his book Leading Change offers a simple formula: “ A good vision will clarify the right direction, motivate people to take the right action in the right direction, and coordinate the actions of different people in a fast and efficient way.” <sup>4</sup>

## **SEA POWER 21 STRATEGIC VISION DEVELOPMENT**

Like all proper military service vision statements, Sea Power 21 takes its lead from higher authority through The National Security and Military Strategies. The President outlines his vision for the Nation, the Chairman of the Joint Chiefs takes that guidance and formulates a complimenting military strategy and from that product, the various military services take direction in structuring vision and strategy from the perspective of the various unique warfare contributions.

## **NATIONAL SECURITY STRATEGY**

The aim of our strategy is to help make the world not just a safer but better place.

—George W. Bush

The Bush administration’s 2002 version of the National Security Strategy (NSS) provides a clear vision for the United States through the employment of the four elements (political, economic, military and information) of national power. In his National Security Strategy, the President focuses first on human dignity, economic growth, building democracy and cooperative action. Within the final four goals, the military realizes its contribution to the strategy in strengthening alliances, defusing regional conflicts, preventing enemy threat and transforming Americas’ security institutions. This vision clarifies the countries direction “make the world not just safer but better place,” it motivates “America is successful because of the hard work, creativity, and enterprise of our people,” and coordinates “The United States welcomes our responsibility to lead in this great mission.” <sup>5</sup>

## **NATIONAL MILITARY STRATEGY**

Protect, Prevent, and Prevail...Today and Tomorrow.

—Richard B. Myers

The Chairman of the Joint Chiefs of Staff takes direction from the National Security Strategy and focuses on the military elements in building the National Military Strategy (NMS). As discussed before, the objectives from the NSS for the military are, strengthen alliances to prevent attacks, work with others to diffuse regional conflicts, prevent our enemies from threatening us, our allies and friends and transform America's security institutions to meet new challenges. The National Military Strategy uses these broad elements to establish a vision with the defining statement "Protect, Prevent, and Prevail...Today and Tomorrow." <sup>6</sup>

The first two goals of, "strengthen alliances to defeat global terrorism, and work with others to diffuse regional conflicts," are captured in the "Protect" category. Prevent our enemies from threatening us, our allies and our friends is articulated in the NMSs' prevent concept which is further defined as "prevent conflict or unwanted attacks through the practice of forward presence and preemptive use of the military." The Presidents goal of transforming America's security institutions to meet new challenges is captured in "Prevail," where the military is called to be adaptable, flexible and understanding of the need to compliment all instruments of national power to create a safe stable and secure environment." <sup>7</sup>

The vision is clear in it's simplicity "Protect, Prevent, and Prevail...Today and Tomorrow." It motivates " we will win the war on terrorism " and coordinates "The central thread running through these priorities is the criticality of enhancing our joint war fighting capability—which will drive all that we do and should serve as the unifying focus for the armed services." <sup>8</sup>

## NAVY STRATEGY

Dominate warfare in the maritime domain deterring forward in peacetime, responding to crises and fighting and winning wars.

—Vern Clark

The strategy articulated in the CNO's vision for the Navy "Sea Power 21" takes the "Prevent, Protect and Prevail" guidance and incorporates its unique maritime service contribution in a very structured fashion. First the CNO organizes his vision into three concepts of Sea Strike, Sea Shield and Sea Basing. Respectively, these concepts define how the Navy will project precise and persistent offensive power, global defensive assurance and joint operational independence. These concepts are then linked through aligned and integrated systems that the CNO calls "FORCENet." The concepts of Strike, Shield and Basing are implemented through a "Global Concept of Operations" that is designed to dissuade, deter, and

defeat both regional and transnational threats. Finally, the concepts are achieved through a supporting triad of organizational processes including innovation, “Sea Trial,” investing in sailors, “Sea Warrior,” and resourcing tomorrow’s fleet, “Sea Enterprise.” To summarize, Sea Power 21 defines a Navy with three fundamental concepts, Sea Shield, Sea Strike, and Sea Basing, enabled by FORCEnet. Respectively, they enhance America’s ability to project offensive power, defensive assurance, and operational independence around the globe. A supporting triad of initiatives will develop those core operational concepts: Sea Warrior, Sea Trial, and Sea Enterprise.<sup>9</sup>



FIGURE 1. SEA POWER 21

As stated before, an effective vision will clarify, motivate and coordinate. The CNO accomplishes these essential elements and meets all the criteria for a well articulated vision in the opening of Sea Power 21. First, it is written in his own words and expresses the contribution the Naval forces want to make towards the National Military and National Security strategies.<sup>10</sup>

The 21st century sets the stage for tremendous increases in naval precision, reach, and connectivity, ushering in a new era of joint operational effectiveness.

Innovative concepts and technologies will integrate sea, land, air, space, and cyberspace to a greater extent than ever before. In this unified battle space, the sea will provide a vast maneuver area from which to project direct and decisive power around the globe.<sup>11</sup>

Second, the CNO creates a vision that fits the Naval culture and he explains why the vision is worthy of effort, making for a great cause.<sup>12</sup>

By doing so, we will continue the evolution of U.S. naval power from the blue-water, war-at-sea focus of the "Maritime Strategy" (1986), through the littoral emphasis of ". . . From the Sea" (1992) and "Forward . . . from the Sea" (1994), to a broadened strategy in which naval forces are fully integrated into global joint operations against regional and transnational dangers.<sup>13</sup>

Last, the CNO provides guidance, inspires people to action and builds a bridge to the future.<sup>14</sup>

To realize the opportunities and navigate the challenges ahead, we must have a clear vision of how our Navy will organize, integrate, and transform. "Sea Power 21" is that vision. It will align our efforts, accelerate our progress, and realize the potential of our people. "Sea Power 21" will guide our Navy as we defend our nation and defeat our enemies in the uncertain century before us.<sup>15</sup>

The CNO has set a bold course into the future for the Navy with a well defined and powerful strategic vision. Given the emphasis Sea Strike, Sea Shield and Sea Basing receive in the vision, subordinate Navy commands would be wise to adopt the concepts and develop supporting initiatives that keep them within the same strategic framework.

## **NAVAL FACILITIES ENGINEERING COMMAND STRATEGIC PLAN**

The Systems Commands will be integral partners in this effort, bringing concepts to reality through technology innovation and the application of sound business principles.

—Vern Clark

NAVFAC has developed a Strategic Plan that establishes the organizations' present state and projects its vision seven years into the future. It is a well written and easy to read document which effectively communicates the NAVFAC vision, mission and guiding principles.

Vision: "We are critical to Navy and Marine Corps combat readiness and quality of service. We are leaders who offer and deliver world-class facilities engineering and management."

Mission: "We are the Navy's facilities, installation and contingency engineers. We serve the Navy and Marine Corps Combat Team, Unified Commanders, Department of Defense and other Federal Agencies."

Guiding Principles: "Accomplish the Mission." "Speak with one Engineer Voice."  
16

Prior to the publication of Sea Power 21, the Chief of Naval Facilities Engineering Command was able to match the organizations strategic outlook with that of the Chief of Naval Operations by adopting and slightly modifying the CNO's top five priorities for the Navy. Manpower, current readiness, future readiness, quality of service and alignment<sup>17</sup> become alignment, interdependence, alliances, quality of services and community management. From these priorities, NAVFAC emphasizes four "Focus Areas" of people, innovation, clients and operations.<sup>18</sup>

Does the vision clarify, motivate and coordinate? The plan does offer clarity to who and what NAVFAC is and why it is important as an organization, "We are the Navy's facilities, installation and contingency engineers. We are critical to the Navy and Marine Corps combat readiness."<sup>19</sup> It also motivates the people of NAVFAC highlighting their critical skills and leadership abilities in the engineering field. Finally it coordinates through its emphasis on teamwork "speak with one facilities engineer voice."<sup>20</sup> The Strategic plan meets the basic requirements of a properly articulated vision.

## **ALIGNING THE NAVFAC STRATEGIC PLAN WITH SEA POWER 21**

The CNO has provided a 21st century vision coordinated with the Marine Corps and endorsed by the Secretary of the Navy that will last well past his tenure. To reinforce the vision throughout the Navy organization, he has followed it with in-depth guidance provided in a series of Proceedings journal articles that amplify the concepts of Sea Power 21. As the CNO takes guidance from the National Military Strategy and communicates the unique contributions of the Navy, so should NAVFAC take guidance from the Navy vision and add its unique contribution. NAVFAC already has a good strategic plan in place, but in adopting the format and concepts of Sea Power 21 it can more effectively communicate its engineering contribution to the Navy. The first step toward this end is to take the CNO's template and identify those items to which NAVFAC contributes through its facilities and Naval Construction Force capabilities. Once

these common elements of the Navy and NAVFAC strategic plans have been matched, missing essentials need to be added. The following provides a definition of required elements, examples of NAVFAC's unique contribution to them, an evaluation as to whether the contributions are articulated in the current Strategic Plan, and suggestions for improved alignment.

## SEA STRIKE

“Sea Strike is a broadened concept for naval power projection that leverages enhanced C4ISR, precision, stealth, and endurance to increase operational tempo, reach, and effectiveness. This is how the 21st century Navy will exert direct, decisive and sustained influence in joint campaigns.”<sup>21</sup> Sea Strike is designed to enhance the war fighting contribution of Marines and Special Forces, through the conduct of "24 / 7" offensive operations while gaining seamless integration with joint strike packages. The capability that Sea Strike gains is ship-to-objective maneuver. In order to achieve that capability, the Navy must synergize with Marine Corps transformation efforts and partner with the other services to accelerate Navy transformation.<sup>22</sup>

### **NAVFAC contribution to Sea Strike**

The Naval Facilities Engineering Command and the Naval Construction Force significantly contribute to the Sea Strike concept through teamwork with the Marine Corps and participation in independent and some joint engineering operations. This operational mission capability is complimented by contingency construction (CONCAP) contracting abilities, that provide rapid, worldwide construction contractor response. The strike capabilities of the NCF, contingency contractors and Marine Corps are a matter of history, but several recent operational successes exemplify the strike contribution NAVFAC and the NCF provide the Navy/Marine Corps and joint warfare team.

Task Force 58 was largely a Marine Task Force augmented with Seabees and organized to establish a forward operations base (Camp Rhino) in southern Afghanistan from October 2001 through February 2002 during Operation Enduring Freedom. After action reports by the Commanding General of Task Force 58 note the invaluable strike contribution made by the 36 man Seabee unit. The report states that the Seabees enabled the build up of combat power through their 24-hour ability to maintain a heavily trafficked airstrip. Credit for maintaining airfield operation and through it the enabling of power projection, is given to the extraordinary efforts of the Seabees.<sup>23</sup>



Examples of CONCAP success include emergent runway repairs in Aviano Italy that enabled air strike capabilities across the Adriatic Sea and rapid response road building in Sarajevo furthering NATO peacekeeping operations.<sup>24</sup> Together these examples point to the flexible construction and engineering capabilities that NAVFAC offers the Combatant Commander.

An illustration of the NCF expanding its proven strike capabilities with the Marine Corps into joint operations with Army and Air Force engineers is currently taking place in the Arabian Gulf. The NCF element of the Marine Air Ground Task Force has evolved into the First Marine Expeditionary Force Engineer Group (MEG). “The MEG is designed to integrate various service engineering elements into task forces. The benefit of the task forces is engineering agility and adaptability on a rapidly evolving battlefield. The MEG's role adds clarity and greatly advances the concept of engineers working jointly on a fast-paced, well-synchronized battlefield.”<sup>25</sup>

NAVFAC is able to offer some very useful strike tools to the Combatant Commander through combat engineering, contingency contracting and the build up operational combat power. Certainly the examples cited demonstrate an enhanced war fighting contribution to the Marines, a 24/7 capability and progress towards partnering with other services that Sea Power 21 calls for. These capabilities must continue to be advertised and advanced by NAVFAC to keep pace on the modern day battlefield.

### **NAVFAC Strategic Plan**

The NAVFAC mission to enhance the war fighting contribution of the Marines is clearly stated. “we serve the Navy and Marine Corps combat team, we are critical to Navy and Marine Corps combat readiness.”<sup>26</sup> In regards to the Sea Strike impact of 24/7 offensive operations, the NCF and contingency contractors have always been and always will be prepared and equipped to conduct around the clock operations. This capability is implied through a strategic plan quote “the Seabees and contingency engineers are ready to respond anytime, anywhere.”

<sup>27</sup> The last Sea Strike impact relevant to NAVFAC is seamless integration with joint strike packages. Throughout the NAVFAC Strategic Plan reference to integration with the Marine Corps is prevalent, yet specific mention of joint operations with the other services is absent aside from “we serve the Navy and Marine Corps Combat Team, Unified Commanders Department of Defense and other federal agencies.”<sup>28</sup>

## NAVFAC Strategic Plan needs

NAVFAC and the NCF need to expand the operational success enjoyed with the Marine Corps into joint operations with the Army and Air Force. The message is consistent from the NMS “The central thread running through these priorities is the criticality of enhancing our joint war fighting capability—which will drive all that we do and should serve as the unifying focus for the armed services,”<sup>29</sup> the CNO’s subtitle to Sea Power 21 “Projecting Decisive Joint Capabilities,”<sup>30</sup> and the recently published Engineer Capability Study which recommends “the need for a joint, integrated process to transform engineers to meet the needs of today and tomorrow is clear.”<sup>31</sup> In addition to this strong guidance, numerous papers and articles written in the past seven years by engineers from the Army, Navy and Air Force have appeared in professional publications outlining the need for joint engineering doctrine along with joint engineering command and control. A common theme expressed in these writings suggests, “engineers often rely on strong backs and quick minds to overcome antiquated doctrine that often thwarts the ability to quickly deploy and provide timely and effective response to operational requirements.”<sup>32</sup>

The scope of the required engineer transformation effort is significant, and no one should underestimate the difficulty involved. Individually, each Service engineer community lacks the influence and resources to manage change of this magnitude. But collectively, for a joint engineer community, none of this is insurmountable.<sup>33</sup>

There are many opportunities for NAVFAC to capitalize on the Sea Strike concept in concert with sister services, leveraging capabilities to enhance overall strike potential. Joint ventures combining the strength of the construction capabilities of the CONCAP contract with the logistics and service capabilities of the LOGCAP (Logistic Capability Contract) and AFCAP (Air Force Capabilities Contract) contract vehicles could also be pursued. Other areas of great joint potential include continuation of combat engineering task forces, similar to the MEG example, made up of Army, Navy, Air Force and Marine Corps engineers. Advances into this joint domain are beginning to happen, but standard operating procedures, tactics, techniques, procedures and doctrine need to be institutionalized.

## SEA SHIELD

“The Sea Shield concept develops naval capabilities related to homeland defense, sea control, assured access, and projecting defense overland. Through this, it reassures allies, strengthens deterrence, and protects the joint force. This new concept moves Naval defense beyond the fleet to the theater and national level. Sea Shield comes first providing assurances, deterrence and denial.”<sup>34</sup>

Sea Shield Capabilities include homeland defense along with sea and littoral superiority. The action steps proposed by the CNO include expanding combat reach, creating common operational pictures for air, surface, and subsurface forces and investment in self-defense capabilities to ensure sea superiority.<sup>35</sup>

### **NAVFAC contribution to Sea Shield**

Within the Sea Shield construct, Naval Facilities Command has a very strong hand to play. It contributes significantly to overseas presence, forward basing, force protection infrastructure and most importantly, access through international engagement. Inherent in the mission of building and basing overseas is the need to engage diplomatically with host nations and nurture relationships with the military establishments of those countries. Common country to country interaction involves large construction and related contracts that provide jobs for host nation citizens and infrastructure improvement for shared military installations.

While the desired Sea Shield impact of projecting defense for joint forces and allies ashore in many ways pertains to a protective umbrella concept of anti missile and counter electronics capability, NAVFAC offers its own contribution of force protection at the ground level. As recent examples in the Arabian Gulf and Kandahar demonstrate: “The MEG can also provide force protection for its own forces and augment existing security in areas where it is assigned. These skills are tailored in real time to dynamic mission requirements.”<sup>36</sup> This statement by NCF Commander, RADM Kubic, highlights the construction force ability to provide structural and active human combat force protection. Enhancing and advancing this capability is NAVFAC’s research and development teams that are constantly providing better force protection systems.

Overseas presence has long been a key U.S. Navy mission and NAVFAC has facilitated that presence and the access it provides through the establishment of overseas port, airfield and basing infrastructure. These facilities are born out of long term relationships with the host nations that are built on diplomatic, military and business interests cultivated by NAVFAC personnel. Representatives of NAVFAC accomplish these relationships through a significant

presence in the Pacific, Atlantic and Indian Oceans as well as the Mediterranean and Arabian Seas. Operational offices and camps in Japan, Guam, Diego Garcia, Spain, Italy, Greece, Great Britain and Bahrain enable fulltime engagement. A fitting example of the result of positive Navy influence in these locations is the cooperation received from all countries mentioned in building the coalition against the current Iraqi regime.

To compliment the overseas presence that enables coalition building and engagement, the NCF and CONCAP are resources capable of additional humanitarian and public relation missions. Small teams can be deployed from the forward bases to accomplish operations other than war, such as civic construction and community building. The spirit of good will and mutual support pays large benefits for the Navy and the US military as a whole creating the relationships and networks that can be employed during crisis situations.

### **NAVFAC Strategic Plan**

The Sea Shield concept is new and presents the first time the Navy takes its vision beyond the fleet to the theater and national level. Not surprisingly, very little language that would fall within the context of Sea Shield shows up in the NAVFAC Strategic Plan.

### **NAVFAC Strategic Plan needs**

NAVFAC already has an extensive network of host nation diplomat/engineers. This is an enormous advantage to the organization and if nurtured and developed can reap huge benefits in the concept of Sea Shield. In foreign engineering field activities in Europe and the Far East, NAVFAC has employees and military personnel who conduct host nation negotiation, agreements and business at the Service, DOD and State level. The relationships formed with host nation personnel in various government and military agencies contribute to the understanding and good will of the parties involved. This good will is reinforced through mutually beneficial construction projects, civil works projects and humanitarian relief projects. These relationships are invaluable during crisis situations when familiar points of contact within host nations can be called on for assistance in fulfilling military missions.

NAVFAC needs to recognize and promote the capabilities practiced by our overseas and host nation engineer and contracting personnel. This valuable corps of individuals needs to be formally identified and their potential defined within the Sea Shield construct. This mission capability needs to be supported through a chain of command and communicated from the tactical level to the Unified Combatant Commander. NAVFAC also needs to explore leveraging joint capabilities such as the Army's Foreign Service Officer expertise in the Sea Shield concept

overseas. This supports the concept of enhancing international deterrence and stability through improved cooperation and assurance with friends, safeguarding maritime trade, controlling crisis escalation and protecting military operations.<sup>37</sup>

## SEA BASING

“Sea Basing projects the sovereignty of the United States globally while providing Joint Force Commanders with vital command and control, fire support, and logistics from the sea, thereby minimizing vulnerable assets ashore.”<sup>38</sup>

Impacts of Sea Basing include pre-positioned war fighting capabilities for immediate employment, strengthened international coalition building and a minimized operational reliance on shore infrastructure. The capabilities that NAVFAC can influence include integrated joint logistics and accelerated deployment and employment timelines and enhanced afloat positioning of joint assets. This concept will be achieved by exploiting the advantages of sea-based forces wherever possible and challenging every assumption that results in shore basing of Navy capabilities.<sup>39</sup>

## NAVFAC contribution to Sea Basing

Sea Basing is an area where NAVFAC has both a strong foothold now and enormous potential for growth in the future. NAVFAC already contributes to the main concept of projecting U.S. sovereignty globally through overseas basing presence and pre-positioned equipment and material afloat on Military Sealift Command ships. This combined with at least two Construction Battalions constantly forward deployed gives NAVFAC the ability to respond quickly in crises with extraordinary reach. As stated in Sea Power 21 “Sea based forces will continue to rely on and complement the strategic basing support around the world.”<sup>40</sup> This basing support refers to “platforms” that the Navy Facilities Engineers have established at key points around the globe. The new focus of Sea Basing also offers challenges to NAVFAC and will require innovations and organizational changes to place our capabilities at sea. As Naval Expeditionary Warfare advances into the littorals, so should the capability of the Amphibious and Mobile Construction Battalions.

Another important contribution area for NAVFAC is the application of building skills to Military Operations other than War. The workforce of NAVFAC entities is very much in the business of humanitarian, civic and reconstruction assistance. This work not only builds physical property, but communicates the National Security message of making the world not just a safer, but better place. A great example is NAVFAC personnel involvement in the Office of

Reconstruction and Humanitarian Assistance that has been established in Kuwait, to coordinate relief and reconstruction efforts among U.S. government agencies, coalition partners, and international non-governmental organizations throughout post-war Iraq.

### **NAVFAC Strategic Plan**

“Provide a well trained and well equipped NCF with world-class logistics systems.”<sup>41</sup> Logistics has and will continue to be key to NCF success. It is included in the NAVFAC Strategic Plan and constantly reviewed for improvement and innovation through the Seabee Combat Development Process (SCDP).<sup>42</sup> Naval Facilities Engineering Service Center (NFESC), is already responding to the call to challenge every assumption exploring new ways to deploy the Amphibious Battalions, for example, utilizing a new high-speed catamaran.

### **NAVFAC Strategic Plan needs**

Compatibility of terminology and systems made the tracking of sustainment from outside the CENTCOM AOR difficult. Even when properly used, the Air Force and Navy/Marine tracking systems did not interface well and often created more confusion than they rectified. Teamwork, communication, personal relations and a willingness to utilize capabilities beyond doctrine were essential elements that created an environment for success.<sup>43</sup>

As the Operation Enduring Freedom after action report reveals, and the Engineering Capabilities Study supports, joint engineers often make up for the lack of interoperable basing capability with quick thinking, communication and teamwork. NAVFAC the Army's Engineers, the Air Force Red Horse Battalions and the Marine Corps combat engineers need to identify complementing core capabilities and follow through with training, doctrine and practice in the art of building and basing in a leveraged effort.

“Sea Based forces will continue to rely on and complement the strategic basing support around the world. In fact, Sea Based forces enhance the ability of our allies to work with us through established interoperability and the international nature of the sea.”<sup>44</sup>

The NAVFAC Strategic Plan also needs to include reference to the ability it provides the Combatant Commander to communicate the National Security goal of making the world a better place through humanitarian and reconstruction assistance. The theme of NAVFAC operators being builders and not destroyers needs to be employed in the Sea Basing concept.

## FORCENET

ForceNet is an overarching effort to integrate warriors, sensors, networks, command and control, platforms, and weapons into a fully netted, combat force. ForceNet will be the Navy's plan to make network-centric warfare an operational reality.<sup>45</sup> Force Net is designed to link the basic concepts of Strike, Shield and Basing through connecting warriors, accelerating the speed and accuracy of decision and integrating knowledge.<sup>46</sup>

### **NAVFAC on ForceNet**

Connecting engineers around the globe is quickly becoming a standard business practice within NAVFAC. As the following quotes from Kuwait can attest "MEG Seabee planners in the Gulf can interface directly with counterparts assigned to Naval Construction Division Command Operations Centers in Little Creek, Va., and Pearl Harbor, Hawaii -- and beyond." "The Naval Facilities Engineering Command's Atlantic and Pacific Divisions are only a phone call or a few key clicks away, providing unique engineering expertise in real-time response to tactical needs anywhere on earth."<sup>47</sup>

This integrated knowledge also needs to be shared with other services to further enable joint operations. NAVFAC needs to stay on the cutting edge and ensure its people are equipped and trained on the latest command, control and communications equipment with a reach back capability to NAVFAC's network of engineering experts.

## GLOBAL CONCEPT OF OPERATIONS

The impact of Global Concept of Operations is to implement the Strike, Shield and Basing concepts by increasing presence, enhancing flexibility, and improving responsiveness.<sup>48</sup>

### **NAVFAC on Global Concept of Operations:**

The concepts of Sea Strike, Shield and Basing are implemented through a global concept of operations that addresses regional and transnational situations. NAVFAC can build on its commitment to "improve communication throughout all command levels and incorporate Web-based enterprise systems, leveraging the Navy and Marine Corps Intranet," to "increase the use of integrated enterprise systems to execute work in all NAVFAC Business lines." The command can also expand on its calls to "Attract, Lead, Manage and Develop a Global Workforce" by communicating its world wide engineering network and reach.<sup>49</sup>

## SEA TRIAL

“Sea Trial is a continual process of concept and technology development through focused war games, experiments, and exercises. It strengthens the Navy's culture of innovation and accelerates the delivery of enhanced capabilities to the Fleet.” <sup>50</sup>

### **NAVFAC on Sea Trial**

There is an inherent advantage to concept and technology development within an organization made up of mechanical, electrical, systems and civil engineers. This is especially true within the ranks of junior officers and civilian engineers fresh from college and university engineering curriculums utilizing the newest technology tools available to the profession. NAVFAC has institutionalized the spirit of innovation with its Naval Facilities Engineering Service Center, Naval Facilities Information Technology Center and the Naval Construction Training Centers. As NAVFAC develops the ideas and technology for the future warfare environment through these institutions it could round out concept development by tapping into the senior service colleges of the Navy, Army and Air Force stimulating strategic development in the area of joint engineering. The institutions are in place and all NAVFAC has to do is recognize and promote this enormous creative potential.

## SEA WARRIOR

“Sea Warrior is the process of developing 21st century Sailors. It identifies the knowledge, skills, and abilities needed for mission accomplishment; applies a career-long training and education continuum; and employs a responsive, interactive career management system to ensure the right skills are in the right place at the right time. The Navy will achieve this with continual professional growth and development, improved selection and classification and networked, high-impact training.” <sup>51</sup>

### **NAVFAC on Sea Warrior**

“Most personnel newly assigned to joint engineer positions have little knowledge of engineer capabilities beyond their own Services, reducing their effectiveness until they acquire the necessary familiarity on the job. We recommend a short joint engineer module in Service engineer advance courses programs backed by a web-based self-paced instruction program.” <sup>52</sup>

The Naval Construction Training Centers have as their mission “to develop and train personnel in basic, advanced and specialized technical and military skills to meet the missions of the Military Engineer Forces.” <sup>53</sup> Guidance from the National Military Strategy, Joint



Publications and results of the ECS dictate the need for progress in joint operations. NAVFAC is answering this task at the combat engineer level with joint construction trade training with the Army and Air Force at Fort Leonard Wood and Sheppard Air Force Base. This needs to be taken to the officer corps in the areas of joint engineering and contracting capability. The ultimate goal should be a training environment that is recognized in both the civilian and military construction world as producing the best tradesmen and engineers.

## **SEA ENTERPRISE**

“Sea Enterprise captures efficiencies by employing lessons. From the business revolution to assess organizational alignment; target areas for improvement, and prioritize investments. The goals are greater process efficiencies, organizational streamlining and enhanced investment in war fighting capability.”<sup>54</sup>

## **NAVFAC on Sea Enterprise**

This process is wide open for NAVFAC to exploit with many programs that are already underway within the organization such as the NAVFAC Engineering Network, e-business and the Engineering Innovation and Criteria Office (EICO).<sup>55</sup> Examples include EICO, which develops leading edge designs in sustainable and antiterrorism construction concepts and e-business, that has placed contract solicitation and bidding on-line.

As the Chief of Naval Engineers states when referring to information technology “NAVFAC will improve the readiness posture of shore facilities for operational forces.”<sup>56</sup> In the same effort towards greater process efficiencies NAVFAC employs its business line system in responding to mission needs as well as using the Naval Facilities Engineering Service Center team for innovative engineering solutions. The NAVFAC organization attracts some of the best engineering and acquisition minds in the country. The organization has an obligation to cultivate those skills and focus them towards expanding the business acumen and interoperability of the organization.

## **BEE POWER 21**

How does NAVFAC articulate a vision that clarifies, motivates and coordinates? How does NAVFAC communicate a Strategic Vision that is in concert with Sea Power 21? The NAVFAC Strategic Plan clearly meets all criteria for a superb strategic organizational vision. Areas within the plan could be modified to clarify the message, motivate the people of the organization and coordinate effort. To do this, NAVFAC can refine its strategic vision by

adopting the format used in Sea Power 21. Second, NAVFAC can inspire through the application of its own unique engineering vernacular within the Sea Power Vision. Last, NAVFAC can synchronize its efforts by aligning its vision with that of the Navy, National Military and Security Strategy. In taking this approach, NAVFAC will more effectively define the contribution that the organization makes toward Sea Power 21, create a vision that fits the NAVFAC and NCF culture and develop why the vision is worthy of effort providing guidance that inspires and builds bridges to the future.

Applying its rich history of engineering accomplishment and the talents of its workforce, NAVFAC can develop a strategy that launches the organization into the future. When the Naval Facilities Engineering Command was tasked to form construction battalions (C. B.'s) during World War II, the bee was selected as the natural mascot for the organization. Just like the insect, the Seabees were ingenious, industrious and efficient. They build, do not destroy and vigorously defend their work and territory. The bee remains an appropriate symbol of NAVFAC, effectively capturing the core values of the organization. Through this cultural icon, NAVFAC has a great opportunity to articulate, within its own traditions, a vision that clarifies, motivates and coordinates, communicating a strategic vision that is in concert with Sea Power 21. Call it BEE POWER 21.

#### MISSION:

We are the Navy's facilities, installation and contingency engineers. We serve the Navy and Marine Corps Combat team, Unified Combatant Commanders, Department of Defense and other federal agencies. We build and defend innovative, best-value, technology-leveraged solutions and alternatives that enable our clients to accomplish their mission.

#### VISION: BEE POWER 21

Through our leadership and ability to build, we enable the concepts of Sea Strike, Sea Shield and Sea Basing delivering world-class facilities and contingency engineering and management to Regional and Combatant Commanders.

- Bee Strike
  - building combat and contingency engineering capability in support of joint war fighters anytime anywhere
- Bee Shield

building physical property and key relationships establishing presence home and abroad to enable the national military mission

- Bee Basing  
building joint operational independence through the establishment of secure land based platforms and the employment of combat and contingency engineering sustainment from the sea.

The concepts are linked through

- Force Net  
21<sup>st</sup> century collaborative engineering tools

The concepts are implemented through

- Global Concept of Operations  
dissuade, deter, and defeat both regional and transnational threats through a highly competent, client focused, interdependent team.

The concepts are achieved through a supporting triad of organizational processes:

- Bee Trial  
promote building and innovation through the extremely creative potential of our people
- Bee Warrior  
attract, lead, manage and develop a joint capable workforce recognized as the worlds best builders
- Bee Enterprise  
build shore facilities that enhance the readiness posture of the operational forces

NAVFAC wants to be the military's builder of choice. With Sea Power 21 as the guide, NAVFAC has a tremendous opportunity to structure a strategic vision that effectively communicates and clarifies its mission and establishes itself as the Navy and National Military's builder. In adopting the context of the supporting organizational processes of Sea Trial, Sea Warrior and Sea Enterprise, NAVFAC can coordinate the actions of its people in concert with the Sea Power 21 Navy. Finally, NAVFAC can motivate the people of the entire organization, incorporating NAVFAC history and culture into a strategic vision called "BEE POWER 21," establishing the organization as the builder of choice, enhancing the vision and mission of the Navy and supporting the National Military and Security Strategies that guide the nation.

WORD COUNT= 6,199

## ENDNOTES

- <sup>1</sup> Vern Clark, "Sea Power 21," Proceedings 128/10/1,196 (October 2002): 33.
- <sup>2</sup> Michael R. Johnson, "Naval Facilities Engineering Command," 1 October 2002; available from <http://www.navfac.navy.mil.htm>, Internet; accessed 1 October 2002.
- <sup>3</sup> U.S. Army War College, Curriculum Catalogue (Carlisle Barracks, PA: U.S. Army War College, 2003), 12.
- <sup>4</sup> John P. Kotter, Leading Change. (Harvard Business School Press, 1996), 69.
- <sup>5</sup> George W. Bush, The National Security Strategy of the United States of America (Washington, D.C.: The White House, September 2002), 3.
- <sup>6</sup> Richard B. Myers, National Military Strategy of the United States of America (Washington D.C.: The Joint Staff, pre-decisional draft 19 September 2002), 11.
- <sup>7</sup> Myers, 11.
- <sup>8</sup> Ibid., i.
- <sup>9</sup> Clark, 33-41.
- <sup>10</sup> Robert R. Ivany, "Creating a Vision," briefing slides, U.S. Army War College, 10 July 2002.
- <sup>11</sup> Clark, 33.
- <sup>12</sup> Ivany, 8.
- <sup>13</sup> Clark, 33.
- <sup>14</sup> Ivany, 8.
- <sup>15</sup> Clark, 33.
- <sup>16</sup> Michael R. Johnson, "Naval Facilities Engineering Command Strategic Plan Fiscal Years 2003-2009," 1 October 2002; available from <http://www.navfac.navy.mil/stratpln.pdf>; Internet, accessed 1 October 2002.
- <sup>17</sup> Vern Clark, "Top Five Priorities," 1 October 2002; available from <http://www.chinfo.navy.mil/navpalib/cno/cno-top5.html>; Internet; accessed 7 January 2003.
- <sup>18</sup> Johnson, i.
- <sup>19</sup> Ibid., 3.
- <sup>20</sup> Ibid., 2.

<sup>21</sup> Gordon England, Vern Clark, and James L. Jones, Naval Power 21...A Naval Vision (Washington D.C.: Secretary of the Navy, 2002), 5.

<sup>22</sup> Clark, 34.

<sup>23</sup> Commanding General Task Force 58 J.N. Mattis, "Task Force 58 Command Chronology for the period 27 October 2001 to 26 February 2002," memorandum for Commandant of the Marine Corps, Washington D.C.

<sup>24</sup> Jay Graven, "CONCAP Emergency Construction Capabilities Worldwide." briefing slides, Naval Base Norfolk: Atlantic Division NAVFAC, 21 February 2003.

<sup>25</sup> Meg Reed, "Seabees Add Depth to Joint-Service Engineer Group," Navy Newsstand, 9 February 2003, 1-2.

<sup>26</sup> Johnson, 3.

<sup>27</sup> Ibid., 10.

<sup>28</sup> Ibid., 2.

<sup>29</sup> George W. Casey, "The National Military Strategy," briefing slides, U.S. Army War College, 2 October 2002.

<sup>30</sup> Clark, 32.

<sup>31</sup> Science Applications International Corporation, "Engineer Capabilities Study: A Path to the Future." The Pentagon: Joint Staff J-4 Engineer Division, 30 September 2002.

<sup>32</sup> Ibid., 1.

<sup>33</sup> Ibid., 5.

<sup>34</sup> Gordon, 5.

<sup>35</sup> Clark, 35.

<sup>36</sup> Reed, 2.

<sup>37</sup> Clark, 36.

<sup>38</sup> Gordon, 5.

<sup>39</sup> Clark, 37.

<sup>40</sup> Ibid., 37.

<sup>41</sup> Johnson, 3.

<sup>42</sup> Naval Facilities Engineering Command, Seabee Combat Readiness Process. NAVFACENGCOM Instruction 1-44. (Washington D.C.: 17 August 2000).

<sup>43</sup> Mattis, 16.

<sup>44</sup> Clark, 37.

<sup>45</sup> Ibid., 37.

<sup>46</sup> Ibid., 38.

<sup>47</sup> Reed, 2.

<sup>48</sup> Clark, 38.

<sup>49</sup> Johnson, 4.

<sup>50</sup> Gordon, 5.

<sup>51</sup> Ibid., 5.

<sup>52</sup> Science, 4.

<sup>53</sup> Eduard Gonzalez, "Naval Construction Training Center," available from <<http://www.ntcnet.navy.mil/nctcph/command.htm>>; Internet; accessed 30 March 2003.

<sup>54</sup> Gordon, 5.

<sup>55</sup> Michael R. Johnson, "NAVFAC: Reshaping the Future," The Military Engineer, July-August 2002, 24-27.

<sup>56</sup> Ibid., 25.



## BIBLIOGRAPHY

- Bush, George W. The National Security Strategy of the United States of America. Washington, D.C.:The White House, September 2002.
- Casey, George W. "The National Military Strategy." Briefing slides. U.S. Army War College, 2 October 2002.
- Clark, Vern "Sea Power 21." Proceedings 128/10/1,196 (October 2002): 32-41.
- Clark, Vern. "Top Five Priorities." 1 October 2002. Available from <http://www.chinfo.navy.mil/navpalib/cno/cno-top5.html>. Internet. Accessed 7 January 2003.
- England Gordon, Clark Vern, and James L. Jones. Naval Power 21...A Naval Vision. Washington D.C.: Secretary of the Navy, 2002.
- Gonzalez, Eduard. "Naval Construction Training Center." Available from <http://wwwnt.cnet.navy.mil/nctcph/command.htm>. Internet. Accessed 30 March 2003.
- Graven, Jay. "CONCAP Emergency Construction Capabilities Worldwide." Briefing slides, Naval Base Norfolk: Atlantic Division NAVFAC, 21 February 2003.
- Ivany, Robert R. "Creating a Vision." Briefing slides. U.S. Army War College, 10 July 2002.
- Johnson, Michael R. "Naval Facilities Engineering Command Strategic Plan Fiscal Years 2003-2009." 1 October 2002. Available from<<http://www.navfac.navy.mil/stratpln.pdf>>. Internet. Accessed 1 October 2002.
- Johnson, Michael R. "Naval Facilities Engineering Command," 1 October 2002. Available from<<http://www.navfac.navy.mil>>. Internet. Accessed 1 October 2002.
- Johnson, Michael R. "NAVFAC: Reshaping the Future." The Military Engineer, 618 (July-August 2002): 24-27.
- Kotter, John P. Leading Change. Harvard Business School Press, 1996.
- Mattis, J.N., Commanding General Task Force 58. "Task Force 58 Command Chronology for the period 27 October 2001 to 26 February 2002." Memorandum for Commandant of the Marine Corps. Washington D.C.
- Myers, Richard B. National Military Strategy of the United States of America. Washington D.C.:The Joint Staff, pre-decisional draft 19 September 2002.
- Naval Facilities Engineering Command. Seabee Combat Readiness Process. NAVFACENGCOM Instruction 1-44. Washington D.C.: 17 August 2000.
- Racanelli, Vinny "Joint Engineering." The Military Engineer, 594 (October -November 1998): 55-56.
- Reed, Meg. "Seabees Add Depth to Joint-Service Engineer Group." Navy Newsstand, 9 February 2003, 1-2.



Schmidt, Greg "Engineers Going Joint." The Military Engineer, 599 (June -July 1999): 49-52.

Science Applications International Corporation. "Engineer Capabilities Study: A Path to the Future." The Pentagon: Joint Staff J-4 Engineer Division, 30 September 2002.

The Joint Staff. Engineer Doctrine for Joint Operations. Joint Pub 3-34. Washington D.C.:The Joint Staff 5 July 2000.

The Joint Staff. Joint Doctrine for Civil Engineering Support. Joint Pub 4-04. Washington D.C.:The Joint Staff 27 September 2001.

U.S. Army War College. Curriculum Catalogue. Carlisle Barracks, PA: U.S. Army War College, 2003.